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M.A.C.E. JOURNAL

"Devoted Exclusively To The Atari Computer User"



Published by the Michigan Atari Computer Enthusiasts

FROM YOUR PRESIDENT

Tom Sturza



FROM YOUR EDITOR

R.Charles Sibthorpe

Happy New Year!!

1987 - a New Year and new things are being asked of M.A.C.E. and it's members. We now have two different groups of New Users: 8-bit and 16-bit ATARI Personal Computer (PC) owners. Both groups need to be aided in their quest of training and guidance in the use of their PC's.

The first group - ATARI 8-bit users, have a large number of potential people that they can turn to for help. Almost the entire membership of M.A.C.E. owns at least one 8-bit ATARI PC. In addition to "New User Forum" sessions, these New Users can ask their fellow M.A.C.E. members for assistance. So, if someone asks you a question at a General Meeting, try and help out. If you don't know the answer, recommend that they ask an officer.

The second group - ATARI 16-bit users, will find themselves in a different situation. There aren't that many M.A.C.E. members that have purchased a ST (but the number is growing rapidly)! The ST SIG is the place to get that needed help. They meet the first Tuesday of each month in a meeting room above Southfield Parks & Rec.

So, if you are a New User of an ATARI PC, now is the time to let your officers know what you want and need in 1987. Information can be provided at General Meetings, SIG Meetings or in the M.A.C.E. Journal. Why not drop us a note in the Suggestion Box (at the General Meeting) or mail it to our P.O. Box. Let's make 1987 the year of the ATARI PC User.



With this Journal, I will have been your Official Editor for four months. In the early stages as your Editor, the journals were thin only in quantity, but rich in content and quality. YOU, the members of MACE, made this Journal and the club what is today. A stronger, more united organization than we were 6 months ago. I feel that MACE is like a Phoenix that rose out its own ashes to live again. Yes, 1986 was tough on all of us, but we pulled together, hung in there and survived while other clubs were breaking up. Because we survived, 1987 will be that much better!

I would again like to take time to recognize the members of my "Staff" for without their valuable assistance, my job as Editor would have been 10x more difficult;

John Leasia - Who at times on a moments notice would proofread and re-type submitted articles;

William Schlick - Who also proofread and re-typed submitted articles as well as assisted me in editing some journals;

Bob Carlini - Who acted as liazon for international correspondence, proofread and re-typed the articles titled "Flying the ST" by Allen P. Bargaen;

Sally Sibthorpe - Who is the creative genius responsible for our Journal covers.

Thank you for your assistance and support each and every one.

Just a reminder that all articles for the journal must reach me or any one of my Staff by the General Meeting if it is to be published in the following Journal.

P.S. I need more articles from the membership and don't be afraid to drop me a line (a 'Letters to the Editor' column is on my adgenda for the 1987 Journals). Have a Happy New Year, and don't become a satistic over the holidays.

January 1987
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Bring disk to the monthly general meeting or send it to: MACE, PO Box 2785, Southfield MI 48037 Attn: Disk Librarian.

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**M.A.C.E. - ST\SIG THE CLUB FOR TODAY!
THE MACHINE FOR TOMORROW!**

ST\SIG NEWS

December 7, 1986

From the desk of the (acting) Chairman.

Greetings ST-Atartian's! Aside from a rather small turnout at the December meeting, I call it an outstanding success! We had guest speakers (Michtron and MicroNet), demo's, announcements of coming elections, announcement of change in meeting format, and good open discussion on problems, solutions, and critiques. Seems the only thing missing was members!

I know that MACE has more ST owners than what have been coming to the SIG meetings. We need you and feel that we have a lot to offer you in return. The STLibrary is finally a reality and growing rapidly. See us at the December General Meeting.

Now for the main reason for this newsletter article.

A few changes in in the SIG meeting format has been brought about to respond to the survey filled out by the SIG members. We appreciate the input and here is the response. The meetings will be formatted (roughly and not rigidly) as follows:

7 to 7:30

Doors open, members and guests register with the Membership Coordinator (Paul Wheeler - acting) provide any notices, interesting information, and offers to do demo's to the Meeting Coordinator (Vic Farkas, Ed Hanson, and Steve Mileski - acting). The STLibrary will be open for sales and submittals, see the SIG Librarian (Vic Farkas - acting). The duty ST will be showing some demo's (hopefully available in the library!).

7:30 to 7:45

Meeting opened by one of the SIG Officers. SIG business is attended to. The night's announcements are made.

7:45 to 8:30

This time will be used for guest speakers, software demo's, hardware demo's, and all activities planned by the Meeting Coordinator (currently no one).

8:30 to 8:45

Take a break! Vendor's are welcome to sell their wares. The STLibrary is open. The duty ST will be showing some demo's and be used to verify the operation of sales and submittals.

8:45 to 9:15

Open discussion, question and answer, sub-SIG's gatherings. During this time you will be able to move between various discussion groups covering topics like programming, game playing, advanced use of word-processors, data-bases, and telecommunications packages. These sub-SIG.'s will have their regulars who will be the 'people in the know'. It will be encouraged that members bring in parts or all of their ST's for sub-SIG's use. Wouldn't it be nice to see three to four ST's here besides the club's duty ST?

9:15 to 9:30

Order is called for the closing. Any interesting topics and announcements can be made at this time. News items and interests for coming events can be offered to the membership. Equipment can be taken down and packed away. Meeting Adjourned!

RANDOM THOUGHTS AND CONSIDERATIONS:

As I look this adgenda over I feel

NEW USER CORNER

By Tom Sturza

Questions often asked by New Users of ATARI 8-bit Personnel Computers:

Q: How do I print a list of the files that are on M.A.C.E. public domain diskettes?

A: The directory of a diskette contains the names of all files found on that diskette. One way to list these names is to use the ATARI Disk Operating System (DOS).

First, load DOS from a M.A.C.E. diskette or your Master ATARI DOS diskette. This will require that you turn your disk drive "ON" and place the desired diskette in it before turning the computer "ON".

Now turn your computer "ON". If you are using a M.A.C.E. diskette and you started up your system with BASIC active, the BASIC MENU program will probably have listed all available programs on your TV or monitor screen. Select the number for DOS, type it, and press <RETURN>. The DOS MENU screen should now appear.

If you are using the MASTER DOS diskette or a diskette that does not contain a BASIC MENU program, do the following. Remove your BASIC cartridge or for those with BASIC built into their ATARI PC, hold the <OPTION> key down and turn the computer "ON". The DOS MENU screen should now appear.

We are now ready to print the desired list. If you haven't already done so, you should now turn your printer "ON".

Once you have loaded the DOS MENU screen, do the following;

Type an "A" and press <RETURN>
(Just the A, not the quotes)
Type D1:,P: and press <RETURN>

That noise you are now hearing should be your printer printing.

I normally print a list of files for each M.A.C.E. diskette that I own and tape that list to the front of the diskette envelope. Now I can quickly tell just what is on each diskette.

Q: How do I print a .DOC file from a M.A.C.E. public domain diskette?

A: Follow the instructions for loading DOS as described above. Also, make sure that your printer is turned "ON". Now, let's say that the file you wish to print is called "CALC.DOC". From the DOS MENU screen, do the following;

Type a "C" and press <RETURN>
(Again, do not use quotes)
Type CALC.DOC,P: and press <RETURN>

The computer will now read the CALC.DOC file into memory and then print it on your printer.

One other way of printing a .DOC file would be to use a Word Processing program. Just load the file and print it using your Word Processor's capabilities.

Well, that's it for this installment of "New User Corner". M.A.C.E. welcomes contributions to this column from all members. Also, if you have something you would like to see written up here, please send a note with your request to the M.A.C.E. P.O. Box.

BOUQUETS AND BOOS!

By P. R. Wheeler

If I were asked which software company deserved bouquets for quality programs published for the ATARI, I would have to answer Batteries Included.

Since "HomePak" hit the ATARI scene a year or so ago, Batteries Included has introduced: "PaperClip" and "B-Graph" for the 8 bit ATARIs, and a 130XE version of "PaperClip" which includes "SpellPac"; and for the ST, there is "DEGAS", "HomePak", "Isgur Portfolio System", and "PaperClip Elite".

This is the current list and there are many more programs to be released this year. Two examples are "THUNDER!" and "IS-TALK". Several programs are being upgraded with the term "Elite" attached to their prior names, both for the 8 and 16 bit machines.

It has been Batteries Included policy to market non-protected programs, so backup copies are readily available to the end user. It shows their trust in us! We should honor their trust by not making illegal copies of their programs, thereby putting other software companies on notice to do likewise.

Thanks, Batteries Included, best wishes for a long and successful future. Keep those quality programs coming and coming!

My choice for the BOOS, BRICKS and BATS goes to LJK ENTERPRISES, INC., whose "Letter, Data, and Spell Perfect" programs were once the standard for others to follow. LJK is resting on their laurels (for sake of a better word) and by failing to upgrade their programs, has not kept up with the competition.

I personally think that the "Perfect" series are still very good programs! Especially the "Data Perfect" program, which I have used to keep M.A.C.E. records since 1983. Back then

the best ATARI computer had 48K. As the memory for our computers has expanded to 64K, 128K, 256K, 312K, etc., the LJK programs have not expanded along with them (to make use of this extra memory). It's a crime that programs of this stature should be left in the dust by programs that don't measure up to them. Come on, LJK... let's get going or you'll be gone!

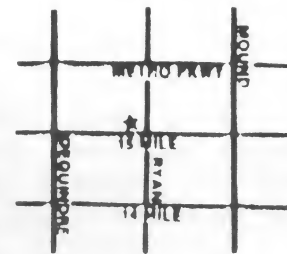


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SUPPORTING MACE WITH A SUSTAINING MEMBERSHIP

RAMBO XL

by William Schlick

This review is written for a special group of MACE members. I'm referring to the owners of 800XL and 1200XL computers who might wish to upgrade their computers to take advantage of the new software now available for the 130XE. I am the proud owner of a 800XL which I wanted to upgrade so that it would run 130XE programs. I could just as easily have purchased the 130XE, yet I choose to install the RAMBO XL. What I gained by installing the RAMBO XL was almost 100% computer compatibility, also not having to dump a good computer (800XL), and the benefit of even more memory than the 130XE. Please note that any modification kit for the XL computer will not make that computer a 130XE, but the RAMBO XL computer will run most 130XE software with no problems.

RAMBO XL is a 256K memory expansion kit (\$49.95) produced by ICD, inc 1220 Rock St. Rockford IL 61101-1437. ICD is the company that has brought out for Atari, SpartaDOS Construction Set, US Doubler, R-Time 8, and P:R: Connection. What is meant by 256K memory expansion is that the normal memory size of 64K (64,000 bytes) for the 800XL or 1200XL computer is now increased by 194K to 256K. The 130XE has a memory size of 128K, so the RAMBO XL computer has more than enough memory to run 130XE software. The way that both the 130XE and RAMBO XL computers use this memory is through a program technique called bank selection. Bank selection allows for a section of memory or bank to be swapped for another. These 16K (16,000 byte) banks may be thought of as placed into a window that the computer sees and then swapped in and out of the window as needed. Since this is how the 130XE accesses it's extra memory as does the RAMBO XL, then software run on the RAMBO XL computer will function the same as on the 130XE. The RAMBO XL package comes with a circuit board and a 21 page instruction manual, the 8 new memory chips needed are purchased separately. The circuit board is top grade design.

In other modification kits the ANTIC

chip which controls the television or monitor display may have to be replaced, but the RAMBO XL design will work in any 800XL or 1200XL without regard to the revision ANTIC chip used.

The RAMBO XL instruction manual is broken into sections on pre-installation preparation, installation steps for 800XL and 1200XL, and using RAMBO XL. If you are looking for an excellent step by step walk through on installing the kit, along with circuit figures, then this manual will delight you. ICD has provided a system that the 'not total' novice should realistically be able to follow and install the kit with out a moments regret. The actual disassembly, parts identification, points to solder the jumper wires (6 or 7 wires), and reassembly are each spelled out in American and phased as if ICD was guiding you step by step. I expect that some people might not wish to attempt the installation because of the need to disassemble their computer. I do not see this as a reason to limit you from upgrading your computer, however. MACE members will find that we are fortunate to have SECTOR ONE COMPUTERS 3685 15 MILE Rd Sterling Hts 978-2208, who are an authorized ICD supplier and carry the RAMBO XL instock along with the proper optional memory chips. RENTERAINMENT 22205 Kelly Rd E. Detroit 445-2983 and 33139 Gratiot Mt. Clemens 792-0710 also carry RAMBO XL and memory chips. Jim at SECTOR ONE and MIKE at RENTERAINMENT are well versed in installing the RAMBO XL and will for a modest fee install it for you.

Since programs run on the RAMBO XL will 'believe' that they are on a 130XE, you will not need to be a programmer to use them. For the weekend to advanced programmer, use of bank selection in your programs is covered completely in the manual with no secrets withheld. I will be happy to answer your questions concerning the ICD RAMBO XL if you will send them through the MACE Editor, or if you spot me at the meetings please stop and say hello and I can talk to you then.

PERSONAL FINANCE AIDS

Review by Russell Crum

How much do I need to save each month to meet expected costs of college? What is the return on my investment in the company stock plan and my mutual funds? I just installed new storm windows, are they helping my home heating? These are just a few of the personal finance types of questions that disk "MD" in the M.A.C.E. Public Domain disk library can help you answer.

This disk contains six programs plus a documentation file on each. These programs were written to help answer different questions arising from trying to use limited family financial resources more efficiently. There is one disadvantage to these programs for many of you. The programs are written in O.S.S.'s BASIC XL (or BASIC XE). If you don't own one of these versions of basic, don't despair, you have my condolences, but there is an inexpensive solution other than buying them. First let me briefly describe the programs.

The six programs are a sinking fund, personal net worth, loan amortization, return on investment, home energy efficiency, and data plotting.

A sinking fund is like the Christmas Club accounts at banks. Put away X dollars each month so that you will have Y dollars accumulated at a particular point in time. This sinking fund program allows 12 different points in time and amounts to be paid out of the fund. It allows you to specify up to 10 single sum and 4 monthly investments. The additional monthly amount needed to make the whole mess balance is calculated for you. One word of caution I have learned, you may present the program with an impossible calculation; usually from not having enough time to meet the payments.

Personal net worth asks you to provide your bank account balance(s), home market value, stock value, mortgage

balance, car loans, etc. The program then computes your net worth. The result can be plotted in bar graph form and saved to disk. Up to 26 years of data may be stored and plotted.

Loan amortization is pretty traditional except this one allows 4 different interest rates to be used during the life of the loan. An amortization table is printed that shows cumulative interest for each calendar year and loan balance.

Return on investment is a measure of how well your investments are doing. This version can handle 20 different single investments and 4 different monthly investment streams. Try solving that on a hand held business analyst calculator! I have found one correction to this program that can cause an error with the "right" set of data. Line 200 should be deleted. Non BASIC XL users can safely do this and SAVE the program back to disk.

Home energy analysis keeps track of the heating (or cooling) efficiency of your home. Since energy prices keep changing, it is difficult to monitor heating efficiency. This program uses a measure that is "degree days" divided by energy units. This gives a "miles per gallon" type of measure. Degree days are computed by the weather bureau and published daily in the newspaper's climate data section. Energy units are given on your gas (CCF) or electric bills. The results are stored on disk and may be displayed in bar graph form. Thus, year to year comparisons can be made for a particular month or series of months.

Plotdata was written to store and plot pairs of data (e.g. return on investment for each month). The data may be stored on disk: with up to 5 sets of data overlay plotted in line chart form,

(Continued on page 19)

M. A. C. E...?

by Gordon Totty

What do those letters mean to you? Michigan Atari Computer Enthusiasts, of course. Have you considered Mississippi instead of Michigan? Minnesota? Miami? Farther afield, how about Manitoba? (Yes, how about Manitoba?) Well, this month I got a look at another MACE newsletter, The Australian Atari Gazette, published by the Melbourne Atari Computer Enthusiasts. You can't get much farther away than "down under" in Australia! These good MACers spend \$3.35 (Australian) to air mail their hefty newsletter to us. The issue I saw was a whopping 50 pages or so, with lots of ST coverage, cartoons, advertising, and programs. Prices look a bit high there, although they are not so far out of line when you allow for the relation between their dollar and ours. The Australian dollar is worth about 64 cents U.S. Examples: used 1050 disk drive, \$350; 800 computer, \$250; new Koala Pad, \$125; Ultima IV, \$99; AtariWriter, \$88; VIP, \$299; Zoomracks, \$149.

I selected the following article to copy from The Australian Atari Gazette. Our friends in Melbourne had, in turn, copied this from Page 6, Issue 20, March/April 1986. Now everyone has gotten credit, including me! By the way, I hope I have faithfully copied this. You'll notice some quaint British spellings and some not-so-quaint un-American punctuation!

My printer would not correctly print the listing from AtariWriter Plus, and so I changed some of the characters using a convention that should be familiar to you. In lines 965, 1385, 1410, and 1565 I indicated the proper keystroke sequence in brackets ... []. In some places I indicated how many spaces to skip by the same notation, where I could see that due to formatting you would have trouble counting them. Finally, AtariWriter thinks inverse means underline, so where you see underlined text type it in inverse.

I have also supplied this to MACE (our MACE!) on a disk SAVED from BASIC, and I hope this gets into the library so you can buy it instead of typing it.

If you enter this as I have presented it and find that it doesn't work ... because (perish the thought) I messed up ... then I suggest tar and feathers for yours truly, and this chicken will supply the feathers. However, it should be safe as I have checked this out and it runs for me. No Capute! next month. I hope.

Fanfare, please. And now, at last, for what I hope is its first U.S. appearance in this form, (Dim the house lights, you idiot!!!) direct from down under, (Spotlight! On, on damned spot!!) here is:

GRAPHICS WORKSHOP

by Allan Knopp

In ANTIC magazine, June 1985 there was a program written by Lyn Buchanan [Will these darned credits never end?] demonstrating the technique of pixel averaging. I was intrigued by the possibilities of the technique and therefore set about writing a drawing program for the GTIA modes which would incorporate pixel averaging and the resulting program was the Graphics Workshop presented here.

The program incorporates many of the facilities you would expect from a drawing program and includes a few extras. As well as the pixel averaging technique which gives results similar to digitised pictures, there is a colour rotate feature to give animated effects (anything the ST can do!...). The rest of the facilities and commands are explained.

GRAPHICS WORKSHOP COMMANDS

The appropriate keypresses are indicated.

In many cases the reversal of an instruction is to press the same key with CONTROL.

A AIRBRUSH
CTRL A to end.

B BOX
Position cursor to one corner, press FIRE button to plot point, move cursor to diagonally opposite corner and press START.

C COLOUR
Will change the background colour in modes 9 and 11. Use the joystick. Forward will decrease by 16 thus keeping the same luminence but changing the colour. Left will decrease by one, right will increase by one. Press START to return to the drawing.

D DRAWTO
Plot one end of line, move the cursor to the other end and press START to draw a line between the two.

E ERASE
Clears the graphics screen. Answer Y to the prompt to clear the screen.

F FILL
Plot top left, move to the bottom left and press START. This is the standard XIO FILL over the background from left to right until it hits a pixel which is lit.

G GRAPHICS
Select 9, 10 or 11 without clearing the screen. The colour selection bar looks a little odd in graphics 10 but just use the top 8 blocks (colours 1 to 8) plus the background (colour 0), ignore the rest.

K COLOUR CHANGE
In graphics 10, colours 0 to 8 are available. Select which colour you wish to alter and use the joystick to change. Press SELECT for another colour, START to return to the drawing.

L LOAD
From disk or cassette.

M MOVE CURSOR SLOWLY
For detailed work. CTRL M to end.

N NO BAR
This will remove the colour bar from the right hand side of the screen. CTRL N will replace it.

O CIRCLE
Plot the centre bottom of the circle, move the cursor vertically to the centre and press START. You will not be able to plot a circle which extends off the screen, you will get an error message and be asked to try again.

P PIXEL AVERAGING
This is the routine which appeared in ANTIC, June 1985. It is really intended to be used in graphics 9 although some interesting effects can be obtained in 10 and 11. It has the effect of softening hard edges and smoothing contours. Once the routine has started, it cannot be stopped until it has finished, except by pressing RESET and losing the picture. Once the screen has been completely converted, it is possible to retouch it and add text. [Note: This routine is slow!]

R ROTATE COLOURS
This can be used only in graphics 10. It enables you to rotate colours through the colour registers to give some animation to your picture. It is possible to rotate through any of the nine registers, including the background. The registers must however be consecutive.

S SAVE
To disk or cassette.

T TEXT
Print text to the screen, one character at a time. Position the cursor and select the colour before pressing T. To cancel press CTRL T and RETURN.

W WIDE BRUSH
CTRL W to end.

UP ARROW
Move cursor selector up.

DOWN ARROW

Move cursor selector down.

1 - 9

Jump cursor. Will position cursor instantly at the relevant point on the screen.

[At this point, Page 6 asked for pictures to be sent in.]

```
1 REM #####
2 REM #      GRAPHICS WORKSHOP      #
3 REM #              by              #
4 REM #      ALLEN KNOPP              #
5 REM # ----- #
6 REM # PAGE 6 MAGAZINE - ENGLAND #
7 REM #####
100 REM
105 GOTO 160
110 ? C$; " * LOWEST COLOUR NUMBER ":
    INPUT LC: IF LC<0 OR LC>7 THEN 110
115 ? C$; " * HIGHEST COLOUR NUMBER ":
    INPUT HC: IF HC>8 OR HC<1 THEN 115
120 ? C$; " * PRESS START TO END ":?
    "JOYSTICK TO CONTROL SPEED"
125 TEMP=PEEK(704+LC)
130 FOR I=704+LC TO 704+HC:POKE I,
    PEEK(I+1):NEXT I
135 POKE 704+HC,TEMP
140 IF PEEK(53279)=6 THEN ? C$:GOTO
    215
145 IF STICK(0)=14 THEN WW=WW+1
150 IF STICK(0)=13 THEN WW=WW-1: IF
    WW<1 THEN WW=1
155 FOR W=1 TO WW:NEXT W:GOTO 125
160 DIM C$(1),B$(1),FILL$(20),SPRAY$
    (20),BOX$(20),LINE$(20),CIRCLE$
    (20),SLOW$(20),TEXT$(50),L$(10),
    L1$(20),SC$(40)
165 DIM WIDE$(20),MOVE$(6),FILE$(20),
    YN$(1)
170 FILL$=" * FILL MODE ":SPRAY$=
    " * AIRBRUSH MODE ":BOX$=" * BOX
    MODE ":LINE$=" * DRAWTO MODE "
175 CIRCLE$=" * CIRCLE MODE ":SLOW$=
    " * SLOW CURSOR ":SC$=" * PIXEL
    AVERAGING PLEASE WAIT!":WIDE$=
    " * WIDE BRUSH "
180 C$=CHR$(125)
185 GOSUB 1255:GOSUB 1090
190 GOSUB 1475:GOSUB 1160
195 GOSUB 1020
200 TRAP 1565
205 X1=38:Y1=80
210 C1=15:GOSUB 840
```

```
215 S=STICK(0)
220 IF STRIG(0)=0 AND WIDE=0 THEN YY
    =1
225 XX=1
230 IF STRIG(0)=1 AND SLOW=0 THEN YY=
    4:XX=3
235 IF STRIG(0)=1 AND SLOW=1 THEN YY=
    1:XX=1
240 IF S=14 THEN Y1=Y1-YY
245 IF S=13 THEN Y1=Y1+YY
250 IF S=11 THEN X1=X1-XX
255 IF S=7 THEN X1=X1+XX
260 IF S=6 THEN Y1=Y1-YY:X1=X1+XX
265 IF S=5 THEN Y1=Y1+YY:X1=X1+XX
270 IF S=10 THEN Y1=Y1-YY:X1=X1-XX
275 IF S=9 THEN Y1=Y1+YY:X1=X1-XX
280 GOSUB 830:GOSUB 560
285 IF PEEK(764)=255 THEN 215
290 GET #2,K
295 IF K=65 THEN SPRAY=1:WIDE=0:? C$;
    SPRAY$
300 IF K=1 THEN SPRAY=0:? C$
305 IF K=68 THEN DRAW=1:SPRAY=0:? C$;
    LINE$
310 IF K=4 THEN DRAW=0:? C$
315 IF K=66 THEN BOX=1:SPRAY=0:? C$;
    BOX$
320 IF K=2 THEN BOX=0:? C$
325 IF K>49 AND K<57 THEN GOSUB 780
330 IF K=67 THEN GOSUB 1030
335 IF K=70 THEN FILL=1:? C$;FILL$
340 IF K=6 THEN FILL=0:? C$
345 IF K=79 THEN CIRCLE=1:SPRAY=0:?
    C$;CIRCLE$
350 IF K=15 THEN CIRCLE=0:? C$
355 IF K=77 THEN SLOW=1:? C$;SLOW$
360 IF K=13 THEN SLOW=0:? C$
365 IF K=84 THEN TEXT=1
370 IF K=78 THEN GOSUB 1680
375 IF K=14 THEN GOSUB 1140
380 IF K=61 THEN C1=C1+1: IF C1>15
    THEN C1=0
385 IF K=45 THEN C1=C1-1: IF C1<0
    THEN C1=15
390 IF K=80 THEN SCAN=1:? C$;SC$
395 IF K=16 THEN SCAN=0:? C$
400 IF K=87 THEN WIDE=1:SPRAY=0:?
    C$;WIDE$
405 IF K=23 THEN WIDE=0:? C$
410 IF K=83 THEN GOSUB 1420
415 IF K=76 THEN GOSUB 1490
420 IF K=69 THEN GOSUB 1540
425 IF K=71 THEN GOSUB 1580
430 IF K=75 THEN GOSUB 1615
435 IF K=82 THEN GOTO 110
440 GOSUB 840
```



```

445 GOTO 215
450 REM * PIXEL AVERAGING *
455 REM * LYN BUCHANAN *
460 REM * ANTIC JUNE '85 *
465 FOR Y=1 TO 172
470 FOR X=1 TO 75
475 LOCATE X-1,Y-1,A
480 LOCATE X-1,Y,B
485 LOCATE X-1,Y+1,C
490 LOCATE X,Y-1,D
495 LOCATE X,Y,E
500 LOCATE X,Y+1,F
505 LOCATE X+1,Y-1,G
510 LOCATE X+1,Y,H
515 LOCATE X+1,Y+1,I
520 K=INT((A+B+C+D+E+F+G+H+I)/9)
525 COLOR K:PLOT X,Y
530 POKE 77,0
535 NEXT X:NEXT Y
540 SOUND 0,65,14,14
545 FOR W=1 TO 50:NEXT W
550 SOUND 0,0,0,0:SCAN=0:? C$;"DONE"
    :RETURN
555 REM * SET LIMITS *
560 IF X1<3 THEN X1=75
565 IF X1>75 THEN X1=3
570 IF Y1<3 THEN Y1=172
575 IF Y1>172 THEN Y1=3
580 COLOR C1
585 IF SPRAY=1 THEN 705
590 IF FILL=1 THEN 725
595 IF FILL=2 THEN 745
600 IF STRIG(0)=0 AND DRAW=0 THEN
    GOSUB 650
605 IF DRAW=1 THEN 660
610 IF DRAW=2 THEN 670
615 IF BOX=1 THEN 685
620 IF BOX=2 THEN 695
625 IF CIRCLE=2 THEN 865
630 IF CIRCLE=1 THEN 850
635 IF TEXT=1 THEN GOSUB 960
640 IF SCAN=1 THEN 450
645 RETURN
650 IF WIDE=1 THEN PLOT X1,Y1-3:
    DRAWTO X1,Y1+4:YY=4:RETURN
655 PLOT X1,Y1:RETURN
660 IF STRIG(0)=0 THEN PLOT X1,Y1:
    X2=X1:Y2=Y1:DRAW=2
665 RETURN
670 REM * DRAWTO & BOX *
675 IF PEEK(53279)=6 THEN PLOT X1,Y1:
    DRAWTO X2,Y2:DRAW=0:? C$
680 RETURN
685 IF STRIG(0)=0 THEN PLOT X1,Y1:
    X2=X1:Y2=Y1:BOX=2
690 RETURN

```

```

695 IF PEEK(53279)=6 THEN PLOT X1,Y1:
    DRAWTO X1,Y2:DRAWTO X2,Y2:DRAWTO
    X2,Y1:DRAWTO X1,Y1:BOX=0:? C$
700 RETURN
705 REM * AIRBRUSH - ANTIC OCT '84 *
710 DIV=50:OFS=4
715 IF STRIG(0)=0 THEN PLOT X1+INT
    (PEEK(53770)/DIV-OFS)/2,Y1+(INT
    (PEEK(53770)/DIV)-OFS)
720 RETURN
725 REM * FILL *
730 IF STRIG(0)=0 THEN PLOT X1,Y1:
    FILL=2
735 X2=X1:Y2=Y1
740 RETURN
745 IF PEEK(53279)<>6 THEN RETURN
750 POSITION X1,Y1
755 POKE 765,C1
760 XIO 18,#6,0,0,"S:"
765 PLOT X1,Y1:DRAWTO X2,Y2
770 FILL=0:? C$:RETURN
775 REM * JUMP CURSOR *
780 IF K=49 THEN X1=20:Y1=35
785 IF K=50 THEN X1=40:Y1=35
790 IF K=51 THEN X1=60:Y1=35
795 IF K=52 THEN X1=20:Y1=90
800 IF K=53 THEN X1=40:Y1=90
805 IF K=54 THEN X1=60:Y1=90
810 IF K=55 THEN X1=20:Y1=125
815 IF K=56 THEN X1=40:Y1=125
820 IF K=57 THEN X1=60:Y1=125
825 GOSUB 830:RETURN
830 XI=X1*2+47:YI=Y1/2+14:A=USR(MOVE,
    1,PMB,PMD,XI,YI,3)
835 RETURN
840 A=USR(MOVE,0,PMB,PME,195,
    C1*5+15,5)
845 RETURN
850 REM * CIRCLE *
855 IF STRIG(0)=0 THEN PLOT X1,Y1:
    X2=X1:Y2=Y1:CIRCLE=2
860 RETURN
865 IF PEEK(53279)=6 THEN GOTO 875
870 RETURN
875 PHI=0:YY1=0:XX1=Y2-Y1
880 PHIY=PHI+YY1+YY1+1
885 PHIXY=PHIY-XX1-XX1+1
890 PLOT X1+XX1/3.5,Y1+YY1
895 PLOT X1-XX1/3.5,Y1-YY1
900 PLOT X1+XX1/3.5,Y1+YY1
905 PLOT X1+XX1/3.5,Y1-YY1
910 PLOT X1+YY1/3.5,Y1+XX1
915 PLOT X1-YY1/3.5,Y1-XX1
920 PLOT X1+YY1/3.5,Y1-XX1
925 PLOT X1-YY1/3.5,Y1+XX1
930 PHI=PHIY

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935 YY1=YY1+1
940 IF ABS(PHIXY)<ABS(PHIY) THEN PHI=
    PHIXY:XX1=XX1-1
945 IF XX1>=YY1 THEN 880
950 ? C$:CIRCLE=0:GOTO 870
955 REM * PLOT CHARACTER *
960 ? C$;" TYPE CHARACTER ":INPUT L1$
965 IF L1$="[CTRL-T]" THEN 1015
970 FOR L=1 TO LEN(L1$):L$=L1$(L,L):
    LX=X1:LY=Y1:GOSUB 980
975 NEXT L
980 L$=L$(1,1):LA=ASC(L$):COLOR C1
985 IF X1>67 THEN X1=67
990 IF Y1>160 THEN Y1=160
995 FOR L9=0 TO 14:LZ1=57088+LA*8+
    (L9/2):LZ1=PEEK(LZ1)
1000 FOR L8=7 TO 0 STEP -1:LZ2=INT
    (LZ1/2)
1005 IF LZ2*2<LZ1 THEN PLOT X1+L8,
    Y1+L9
1010 LZ1=LZ2:NEXT L8:NEXT L9
1015 TEXT=0: ? C$:RETURN
1020 OPEN #2,4,0,"K":RETURN
1025 CLOSE #2:RETURN
1030 REM * CHANGE COLOURS *
1035 ? C$;"* USE JOYSTICK TO
    CHANGE COLOURS ": ? "PRESS
    BUTTON TO RESTORE - START TO
    DRAW"
1040 S=STICK(0)
1045 P=PEEK(712):IF P>239 THEN P=0
1050 IF S=14 THEN POKE 712,P+16
1055 IF S=11 AND P>1 THEN POKE 712,
    P-1
1060 IF S=7 AND P<254 THEN POKE 712,
    P+1
1065 IF S=13 AND P>16 THEN POKE 712,
    P-16
1070 IF STRIG(0)=0 THEN POKE 712,0
1075 IF PEEK(53279)<>6 THEN 1040
1080 ? C$
1085 RETURN
1090 REM * GR.9 WITH TEXT WINDOW *
1095 RESTORE 1105
1100 C$=CHR$(125):B$=CHR$(253):FOR
    I=0 TO 34:READ D:POKE 1536+I,D:
    NEXT I
1105 DATA 72,138,72,152,72,169,0,162,
    144,160,12,141,10,212,141,27,208
    ,142,24,208,140,23,208,173,192
1110 DATA 2,141,26,208,104,168,
    104,170,104,64
1115 GRAPHICS 8:POKE 82,0
1120 D=PEEK(560)+256*PEEK(561)
1125 FOR I=167 TO 170:POKE D+I+14,
    PEEK(D+I):NEXT I:FOR I=173 TO

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175:POKE D+I+12,PEEK(D+I):NEXT I
1130 FOR I=165 TO 180:POKE D+I,15:
    NEXT I:POKE D+190,0:POKE D+180,
    128:POKE 512,0:POKE 513,6:POKE
    54286,192
1135 POKE 623,64:POKE 87,9:N=PEEK(16)
    -128:IF N>=0 THEN POKE 16,N:POKE
    53774,N
1140 CC=0:FOR X=0 TO 150 STEP 10:FOR
    Y=0 TO 4:COLOR CC:PLOT 78,X+Y:
    DRAWTO 79,X+Y:NEXT Y:CC=CC+1:
    NEXT X
1145 COLOR 6:PLOT 76,0:DRAWTO 76,170:
    IF PEEK(623)<>160 THEN POKE 704,
    144
1150 POKE 752,1
1155 RETURN
1160 REM * P.M. MOVE SUBROUTINE *
1165 REM * TOM HUDSON - ANALOG *
1170 RESTORE 1220
1175 DIM PMMOV$(100),P1$(30),P0$(30):
    MOVE=ADR(PMMOV$):FOR X=1 TO 100:
    READ N:PMMOV$(X)=CHR$(N):NEXT X
1180 FOR X=1 TO 3:READ N:P1$(X)=CHR$(
    N):NEXT X:FOR X=1 TO 5:READ N:
    P0$(X)=CHR$(N):NEXT X
1185 PMBASE=INT((PEEK(145)+3)/4)*4:
    POKE 54279,PMBASE
1190 PMB=PMBASE*256
1195 PMD=ADR(P1$):PME=ADR(P0$)
1200 POKE 559,46:POKE 53277,3
1205 POKE 705,42:POKE 707,136:REM
    PLAYER COLOURS
1210 RETURN
1215 REM * P.M. MOVE DATA *
1220 DATA 216,104,104,104,133,213,
    104,24,105,2,133,206,104,133,205
    ,104,133,204,104,133,203,104,104
    ,133,208
1225 DATA 104,104,133,209,104,104,24,
    101,209,133,207,166,213,240,16,
    165,205,24,105,128,133,205,165,
    206,105
1230 DATA 0,133,206,202,208,240,160,
    0,162,0,196,209,144,19,196,207,
    176,15,132,212,138,168,177,
    203,164
1235 DATA 212,145,205,232,169,0,240,
    4,169,0,145,205,200,192,128,208,
    224,166,213,165,208,157,0,208,96
1240 REM * PLAYER IMAGE DATA *
1245 DATA 144,0,144
1250 DATA 7,6,6,6,7
1255 REM * TITLE SCREEN *
1260 POKE 710,144:POKE 709,12:POKE
    712,144:POKE 708,132:POKE 711,

```

```

142
1265 DL=PEEK(560)+256*PEEK(561)+3:
      POKE DL,71:POKE DL+3,6:POKE
      752,1
1270 GOSUB 1410
1275 POSITION 2,3:?"A= AIRBRUSH ":?
1280 ? "B= BOX -Plot one corner,move
      cursor to          opposite
      corner, press START":?
1285 ? "C= COLOUR CHANGE -Move stick
      to change          press fire
      button for black.":?
1290 ? "D= DRAWTO -Plot one end,move
      cursor,            press START":?
1295 ? "E= ERASE -Clears screen":?
1300 ? "F= FILL -Plot top left,move
      to bottom          left,press
      START":?
1305 ? "G= GRAPHICS -Change mode- 9
      10 or 11":?
1310 ? :? "PRESS START TO SEE REST OF
      LIST":GOSUB 1400
1315 GOSUB 1410
1320 POSITION 2,3:?"K= COLOUR
      CHANGE -In graphics 10 only
      ,                choose colour number,"
1325 ? "          use stick to
      change,SELECT for          another
      colour,START to draw":?
1330 ? "L= LOAD -From disk or
      cassette":?
1335 ? "M= MOVE -Slows down movement
      of cursor"
1340 ? "N= NO BAR -Removes colour
      selector bar      press CTRL-N
      to replace.":?
1345 ? "O= CIRCLE -Plot bottom of
      circle,move      cursor
      vertically to centre [LEAVE 11
      SPACES] press START":?
1350 ? "P= PIXEL AVERAGING ":?
1355 ? "PRESS START FOR REST OF LIST
      ":GOSUB 1400
1360 GOSUB 1410
1365 POSITION 2,3:?"R= ROTATE
      COLOURS ":?
1370 ? "S= SAVE -To disk or
      cassette":?
1375 ? "T= TEXT -Position cursor,
      plot one          letter at
      a time. CTRL-T will          end
      before plotting"
1380 ? :? "W= WIDE BRUSH ":?
1385 ? "[ESC/ESC/ESC/CTRL--]=
      MOVE COLOUR SELECTOR UP ":
      ? :? "[ESC/ESC/ESC/CTRL--]=

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      MOVE COLOUR SELECTOR DOWN ":?
1390 ? "1 to 9= JUMP CURSOR ":? :? :?
      "PRESS CTRL AND KEY TO CANCEL
      FUNCTION"
1395 ? :? "PRESS START TO BEGIN"
1400 IF PEEK(53279)<>6 THEN 1400
1405 RETURN
1410 ? "[ESC/CTRL-<]:POSITION 2,0:?"
      "graphics workshop      -BY ALLAN
      KNOPF"
1415 RETURN
1420 REM * SAVE SCREEN *
1425 ? C$;" FILENAME -eg. D1:FILENAME
      .EXT or C:":TRAP 1565
1430 INPUT FILE$:IF FILE$="C:" OR
      FILE$="C" THEN GOTO 1460
1435 OPEN #1,8,0,FILE$
1440 POKE 850,11:POKE 852,PEEK(88):
      POKE 853,PEEK(89):POKE 856,128:
      POKE 857,28
1445 GOTO 1470
1450 FOR I=0 TO 8:PUT #1,PEEK(704+I):
      NEXT I
1460 ? "PRESS PLAY & RECORD THEN
      RETURN"
1465 OPEN #1,8,128,"C:":GOTO 1440
1470 CLOSE #1:POKE 54286,192:?" C$:?"
      " DONE !":RETURN
1475 REM * MOVE$ *
1480 RESTORE 1485:FOR I=1 TO 6:READ
      A:MOVE$(I,I)=CHR$(A):NEXT I:
      RETURN
1485 DATA 104,162,16,76,86,228
1490 REM * LOAD SCREEN *
1495 ? C$;" FILE TO LOAD? -D:
      FILENAME.EXT or C:":TRAP 1565
1500 INPUT FILE$:IF FILE$="C:" OR
      FILE$="C" THEN GOTO 1530
1505 OPEN #1,4,0,FILE$
1510 POKE 850,7:POKE 852,PEEK(88):
      POKE 853,PEEK(89):POKE 856,128:
      POKE 857,28
1515 I=USR(ADR(MOVE$))
1520 FOR I=0 TO 8:GET #1,A:POKE 704+
      I,A:NEXT I
1525 CLOSE #1:POKE 54286,192:?" C$:?"
      " DONE !":RETURN
1530 ? "PRESS PLAY THEN RETURN":OPEN
      #1,4,129,"C:":TRAP 1565
1535 GOTO 1510
1540 ? C$;"*CLEAR SCREEN ARE YOU
      SURE? Y/N":INPUT YN$
1545 IF YN$<>"Y" THEN ? C$:RETURN
1550 ? #6;C$
1555 GOSUB 1140:RETURN
1560 REM * TRAP ERRORS *

```

```

1565 TRAP 40000:POKE 54286,192:? C*;
" [ESC/CTRL-2][5 SPACES] ERROR ";
PEEK(195);" AT LINE ";PEEK
(186)+PEEK(187)*256
1570 ? " MAKE ADJUSTMENT AND TRY
AGAIN"
1575 FOR W=1 TO 200:NEXT W:? C*:TRAP
1565:CLOSE #1:POKE 54286,192:
GOTO 215
1580 REM * GRAPHICS 9 or 11 *
1585 ? C*;"Which mode do you want- 9,
10 or 11?":INPUT G
1590 IF G=9 THEN POKE 623,64:POKE 712
,0:POKE 704,144
1595 IF G=10 THEN POKE 623,160:POKE
704,0
1600 IF G=11 THEN POKE 623,192:POKE
712,8:POKE 704,144
1605 ? C*:K=0:RETURN
1610 REM *CHANGE GR.10 COLOURS *
1615 ? C*;"* SELECT COLOUR NUMBER-0
TO 8":INPUT K
1620 IF K<0 OR K>8 THEN 1615
1625 P=PEEK(704+K)
1630 S=STICK(0)
1635 IF S=14 THEN P=P+1
1640 IF S=13 THEN P=P-1
1645 IF P>255 THEN P=1
1650 IF P<1 THEN P=255
1655 POKE 704+K,P
1660 PK=PEEK(53279)
1665 IF PK=5 THEN 1615
1670 IF PK=6 THEN ? C*:RETURN
1675 GOTO 1630
1680 COLOR 0:PLOT 76,0:DRAWTO 76,174:
PLOT 78,0:DRAWTO 78,170:PLOT 79,
0:DRAWTO 79,170:RETURN

```



*atari*atari*atari*atari*atari*

Comdex Report: From InfoWorld, November 24, 1986, "A User's View", by Jerry Pournelle.

"There was some excitement at Comdex. It centered around the ATARI booth, where there was something like a feeding frenzy. As usual, ATARI divided its area into about 50 minibooths, each occupied by an ATARI program developer. This year there were so many developers that ATARI had to use two or three shifts to let them all show their stuff. There were programs all across the spectrum from games to serious business software.

Roberta Pournelle spent most of Comdex at the ATARI booth and has decided the ATARI ST really is the machine for the rest of us. It's going to make some real impact on the future of education, and that can't happen too soon."

*mace**mace**mace**mace**mace**mace*

IF you haven't reNEWed your MACE membership yet, STOP POKEing around. PEEK in your wallet or checkbook for \$20.00, and PRINT on the handy renewal form on the back PAGE of this Journal. RESTORE our faith in you by mailing your dues into the P.O. Box address, or by paying at the NEXT General Meeting. Please NOTE the date in the upper right hand corner of the mailing label; it is your membership expiration date. SAVE time and possible ERROR by reNEWing now. IF you have alREADY taken care of this POINT, THEN thanks a lot! BYE

*mace**mace**mace**mace**mace**mace*



GOLDEN OLDIES

A Review by
Gordon Totty

Computer Software Classics, Golden Oldies, volume 1, includes the following four titles:

Adventure
Eliza
Life
Pong

These titles represent historic achievements in the art of computer gaming. (The envelope, please...) The disk is published by Software Country, 9713 Santa Monica Blvd. #202, Beverly Hills, CA 90210. You can call this company on (213) 278-8450. I found my copy in a local computer store, Basic Bits and Bytes, for \$22.95. After reading Steven Levy's Hackers, Heroes of the Computer Revolution I could not resist buying this software.

Mentioning Levy is a good lead in to the description of how this disk is wrapped. It is tucked inside the back cover of a 41 page book, which not only provides instructions, but includes excerpts from books, including Levy's, that describe the history of these famous programs.

By the way, the instructions did not make it clear enough, to me at least, that you must disable BASIC when booting. So, I did not. The curious result is that all of the games work to a point, but not completely. The only clue I got that maybe I should kill BASIC was on booting Adventure I got some garbage on the screen, but only briefly. It works much better with BASIC disabled.

ADVENTURE

Will Crowther and Don Woods created probably the first of the text adventures, and it is reproduced on this disk. I am not very good at these games and so am not very far along with it yet.

To me, it looks as good as any of the others I have tried. Left to my own devices, without a little help from my friends, I would have never got the Babel Fish in another famous game, so I am not sure I am qualified to judge this category. You can read about this game in The Soul of a New Machine by Tracy Kidder as well as in the aforementioned (am I writing like a lawyer?) Levy book.

ELIZA

I fell in love with Eliza before I heard about her reputation. Maybe I'd better explain that line. I got to play Eliza on a Wang PC without ever having heard about it. It was love at first response. Later, I read about Eliza in the Levy book.

From the program notes: "Converse with ELIZA as she simulates, with uncanny reality, your conversation with a Rogerian therapist. Here is an absolutely faithful recreation of Dr. Joseph Weizenbaum's pioneering Artificial Intelligence program." At this point, your perfectly legitimate reaction could be either "wow!" or "huh?" or something in between. For the first reaction, this is nondirective interviewing at its most frustrating best. For the second, trust me that this will "blow your socks off" and you need not know anything about psychology to enjoy this.

You may not need to buy this disk just to get Eliza. There are public domain versions around. I have one in Microsoft Basic and I hope no one remembers that I said I would try to convert it to Atari Basic and donate it to the disk library. One of these years. Soon.

LIFE

The program notes state: "Explore

the wonders of what is perhaps, 'the deepest of all computer games.' Watch the Life screen become a window onto an alternate universe with its own objects, phenomena, and physical laws." In addition to Levy again, The Recursive Universe by William Poundstone is quoted in the booklet provided. A mathematician (John Conway) invented this and a hacker (Bill Gosper) refined it.

I suppose that it could have lived up to its billing for me, if I did not already own Atari's version, Video Easel. Life is tame compared to what Atari did with it. Think about that line.

PONG

"In 1972, Electronics Engineer Al Alcorn created the video game Pong for Nolan Bushnell's fledgling company, Atari. He changed forever the way the world plays. Experience once again the game that burst out of Andy Capp's Bar in Sunnyvale, California and became a national craze." --From the Golden Oldies booklet.

Well, Atarians, I suppose we all should own a copy of this for no other reason than this is the game that built the house of Atari. For me, obtaining this one was the realization of a years old desire. My wife used to drag me away from the Pong demonstrations that were going on constantly in Sears stores in 1977 and 1978. (I hope I'm right about those years. When you pass 50 everything kind of blends together into one past that all happened at the same time. Maybe I blew my brains out last allergy season.)

There are two versions on this disk and both let you play a live opponent or the computer. Fortunately, the computer does not play flawlessly, but I must report that, although I have scored against the computer, I have not yet beaten it. The first version is a copy of the original. The second version, the Software Country version, lets you vary the difficulty of the game by selecting one of about eight speeds. At least, that is what is promised. In my copy all

eight speeds appear identical, and somewhat slow. Since dumb mistakes are my forte it would not surprise to learn that I have made another one here. If you get this disk and find out what, if anything, I have overlooked, please let me know.

Pong can be played with joysticks; you do not need paddles.

That's it for volume 1. I am looking forward to volume 2 to see what other software classics I can add to my collection.

(Continues from page 10)

with a selection of grid patterns. Up to 200 data pairs may be used.

Now, for those unfortunate souls that don't have BASIC XL or XE, how can you run these programs? All of these, except Plotdata, can be run with OSS's BASIC XL TOOLKIT. The Toolkit can generally be found for around \$15-\$20. If you don't own BASIC XL, the only value in the toolkit is to get the RUNTIME version of BASIC XL. This program allows a BASIC XL program to be RUN but not edited. The instructions for doing this are straight forward and are in the manual with the toolkit.

Plotdata cannot be run because the RUNTIME version uses more memory than the cartridge version. In order to run Plotdata with the RUNTIME version, arrays X and Y (line 40) need to be dimensioned to 90 each, instead of 200. There is no way that I know of to edit this line without having BASIC XL, because the syntax check that is done when the line is "entered" again will cause an error. If you know someone who has it, they can edit this line for you and SAVE the program again. If you can edit this program, the term DRV\$="" should be added at the beginning of line 880.

This collection of programs can help you analyze and track a lot of aspects of your family financial picture. If they just told us how to make more money

A PRACTICAL LOOK AT THE 1050 DUPLICATOR, HAPPY REV. 7 AND CHIPMUNK

PART 1

By C.J.Masek

BACKGROUND

With the advent of the 1050 Duplicator, several months ago, another alternative became available for those of us who need to back up software. This may be a controversial discussion for some due to personal feelings concerning this subject. However, many of us have accidents, or our kids do, and expensive frequently used software is damaged. If we are doing a report, or in the middle of an adventure and pop is spilled on the disk, we have a real problem. After a couple of accidents I decided to learn more about these advanced copying methods. Each has its own merits and when the Duplicator was introduced the cost of duplicating hardware/software suddenly came down. Both the Duplicator and Happy modifications now sell for about the same and they can be purchased either locally or by mail order.

THE 1050 DUPLICATOR

Duplicating Technologies Inc. introduced a hardware/software combination for the 1050 disk drive to enable the purchaser to back up commercially available software that cannot be backed-up with DOS or a sector copier. The reason we cannot copy protected software is because the Atari disk drive is a "smart" drive. It has its own microprocessor built in that knows when something cannot be accomplished. This subject can easily be covered in another article. It is enough to say that we cannot tell the drive to do something it is programmed not to do.

Most commercial software contains "errors" that are circumvented during the loading process of the program. But if we

try to read the sectors in the order that Atari DOS dictates, the drive starts to "grind" and the copy process is aborted. Unless the copy protection is removed, each attempt to copy it is futile. This is the reason that both software and hardware are needed to permit the Atari drive to read and faithfully reproduce all the data, including the protection schemes. The "Duplicator" is such a modification.

It is necessary to say that this technology is not infallible, but it has a real value for those of us who feel justified in backing up expensive games such as Ultima, Never Ending Story, Super Huey, and so on. Bob Gardner (formerly with Atari) has put a lot of effort into this device which consists of two circuit boards and two program disks containing programs designed to take full advantage of the circuitry, and over 20 pages of instruction to accompany the hardware.

Although best installed by a qualified technician, it can be installed by anyone who can understand the technical step by step instructions and know how to solder properly. If you purchase this item, read the literature thoroughly before attempting the modification. Be aware that your Atari warranty is voided if you open the disk drive. But don't be discouraged, I put it in with no prior experience. It took about 2 hours of steady work and now that I have done it a few times, it only takes about 20 minutes from start to finish.

The installation requires removing two ICs that are in sockets on all 1050 drives, plugging the larger board into one of the sockets (you need a lot of light and good steady hands) and the last step requires that two wires be soldered

to two locations on the main circuit board that come from the smaller second circuit board. Once completed, a "slow speed" adjustment is required. It needs to be emphasized that NO modification to date will back up all software. It is reasonable to expect it to be useful especially on the latest software that is available. This makes sense because it will be the most frequently used disk in the library for awhile. With this in mind, I have been able to back-up close to 85% of the software I purchased in the past year.

After the Duplicator is installed, your drive will operate in single, dual, and true double density. For that reason, a DOS is provided on the back of the disk that will work in single and double density. Another important fact to remember is that software may have protection routines called timing errors. If we put the software into double density, it will not run. So we have to be careful when trying to save disk space. This author prefers SmartDOS to SpartaDOS or MyDOS because it is so user friendly and 99% of software running on Atari DOS will work with it. It works well in single and double density also. Look for a copy of it and try it. Once you have an enhanced drive, it becomes evident that Atari DOS 2.5 is not very useful. The dual density is just a compromise. The only piece of software even partially written in dual density is the spellchecker for Fleet System II word processor. This is how they were able to put a 70,000 word dictionary on the disk.

Other features of the Duplicator include fast drive "turn off" at the end of a file read. Typical time from the end of a disk read for a standard 1050 is between 10 and 15 seconds. With the Duplicator, this is reduced to 1 to 2 seconds. I have never damaged a disk by taking it out of the drive before it stopped. If you have, then wait until it stops. If you are a bit impatient, you will appreciate this feature. Another big plus for the Duplicator is the ability to write more than 19 sectors on a track. Many commercial disks are custom formatted. You can encounter

tracks with up to 30 sectors on a track. None of these custom modifications can write 30 sectors yet. Electronic arts is the only example I am aware of. But up to 26 sectors can be handled by the Duplicator. This is done by slowing the drive down automatically. If the drive is to write 20 sectors, it must be done in one revolution. Otherwise, the 20th sector will be written on top of the first or second sector and the drive will stay on that track until the power is shut off. Without guard bands between sectors, only 19 sectors can be written without slowing the drive down. The standard Atari format is 18 sectors on each of 40 tracks numbered from 0 to 39. Anything other than that is non-standard. Unfortunately, the 1050 Happy cannot be slowed down. Therefore it cannot write more than 19 sectors.

Another capability of the Duplicator is reading and writing custom formats, where the sectors are put down in a different sequence than the standard Atari format. An example of this can be found when you boot a commercial disk and the normal loading sound heard goes to a very high pitch, usually faster sounding and less audible. In this case, the sectors are being read in sequence on each track for 1 to 18. This is not standard format. It is a lot faster and loads the data into the computer in less time.

The last feature that makes the Duplicator load software faster is its ability to read a full track (18 sectors) at a time. A standard drive can only read one sector at a time. This is due to the RAM in the drive. The Duplicator has 2k of RAM so it can read and store all the information on a track with one revolution of the disk. The only real annoyance is if you put a disk in the drive and induce a DOS read or write option before the drive is completely initialized. The drive can lock up and require you to turn the drive off and then on again and repeat the command. This is also true for the Happy.

The only big minus of these enhancements is when loading software

that 'looks' for timing as part of its protection. When loading this software, it is first necessary to deprogram the drive. Software is provided to do that. Once deprogrammed (simulation of a standard 1050 drive), the drive must be turned off for about 10 seconds and then turned on again to restore all of the features. Since the Duplicator will be looking as skew errors, 'funny' formats, CRC errors, soft sectors, and other protection techniques, your drive may need to be aligned to be able to back up most software. The cost for doing this varies, but if there is nothing else wrong I found reliable repair shops charge around \$25. Keep the head clean using a recommended head cleaning disk with appropriate solvent.

Using the Duplicator is a pleasure. The software tells the computer to display messages explaining the type of protection it is encountering during the copy process. Only the Duplicator has this feature (Rev. 3 software has just been made available). Unlike the Happy Rev. 7, the Backup copy will run on any drive. Some copies of the latest software copied by Happy will only load in a drive with the Happy modification. If that drive fails, you cannot load the software in another drive (providing you have two drives).

Naturally, there are those of us who prefer one brand over the other. Each has very fine merits. The Duplicator is slower than the Happy by about 25% if you plan on only having one modified drive. But the Duplicator can back up more of the newest software than the Happy. One last feature promised for the Duplicator is the ability to transfer protected software via the modem. This will be significant for me since my children live 800 miles away. They have the archive copies of many of my disks and I have many of theirs. With a Duplicator drive on each end, I will save a lot on postage.

The next article will discuss the usefulness of the Happy for backing up disks. In the mean time, try not to put a disk in the drive when it already has

on in it. And they said it couldn't be done!...

EDITOR'S NOTE: The views and opinions of the author of the article you have just read are his own and not necessarily that of M.A.C.E.. M.A.C.E. will not distribute, support or accept for demonstration any pirated software. From time to time I receive articles from our members with views contrary to our policy, and as the Editor, it is my responsibility to edit and publish articles submitted by our members.



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NEW PRODUCTS

Compiled by Jim Kennedy

When corresponding with any of the following, please tell them you saw it in the MACE Journal. It will help the club in getting product information and possible review copies. Thank you.

-----8 & 16 Bit-----

"COMPUTALK TCS" (computer service)
P.O. Box 18346
Ft. Worth, TX 76118
(817) 595-0094 (Voice-Info.)
\$10/year for Computalk TCS ONLY
1-800-TELENET (Voice-"PC Pursuit")

This service is similar to what Analog magazine offered sometime ago to its readers. Computalk TCS has linked 8 Atari computers together! Sort of a cross between CompuServe, Inc. and your local BBS. However, with this service you have to pay the long-distance charges (notice its located in Texas)!

Another service called "PC Pursuit" by GTE Telenet, would solve that problem though. And that's what Computalk seems to have in mind! For a \$25 flat monthly rate, you get unlimited long-distance calling to about 14 major cities (including Ft. Worth, TX).

Computalk TCS offers; CB simulation (upto 8 users), adventures, message bases, downloads (both 8-bit & ST), 300/1200 baud and more.

-----8-Bit-----

Strategic Simulations, Inc. (SSI)
1046 N. Rengstorff Avenue
Mountain View, CA 94043
1-(800)-443-0100, x335 (To order)

Three NEW 8-bit titles by SSI include; "Gettysburg...Turning Point" (48K, disk, \$59.95), "Wargame Construction Set" (48K, disk, \$29.95), and "Warship" (48K, disk, \$59.95). All

simulations include color graphics. Check our local advertisers first.

-----16-Bit-----

"ST User" (magazine)
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Ottawa, Ontario
Canada K1P5G4
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\$56/24 " (2yrs.) Funds)

"ST User" is a top-quality ST magazine. The publishers claim it to be the most popular ST publication in Europe! And now they want to bring it to the U.S.. G-Plus sent us the Oct. '86, #8 issue. To subscribe at the special intro. offer, just send a check or money order to the above address.

"easie ST" (RAM upgrade)
AERCO, Acme Electric Robot Co.
Box 18093
Austin, TX 78760
(512) 451-5874
\$189 (1 Meg. upgrade - Stage One)

This company offers an "easie" to install RAM board for the 520ST. No cutting or soldering is required! This is just Stage One in Three possible Stages. In Stage Two, you add more sockets & chips increasing RAM to 2.5 Meg's. While Stage Three does require some cutting and soldering, it yields 4 Megabytes worth of RAM!!!

"Flight Simulator II" (simulation)
Sublogic Corp.
713 Edgebrook Drive
Champaign, IL 61820
(217) 359-8482
\$49.95 (Color monitor ONLY)

"Flight Simulator II" is now out for

(Continued on page 25)

8-BIT DEAD? METHINKS NOT!!!

By Doug Miller

Well, here I go again, having to defend my 8-bit Atari computer to some more people that think it is obsolete. First it was the APPLE and COMMODORE owners, then came the IBM owners, and now the hardest of them all, the fellow ATARI owners that have abandoned the 8-bit in favor of the new ST's.

These are the same people that a few short months ago, before the release of the ST, would have argued 'til they turned blue that their ATARI 8-bit computer was the best computer available. Now with the appearance of the ST, many of our fellow Atarians have decided that the 8-bits are a thing of the past. I think that statement is a little premature, and I offer the following as evidence of the 8-bit Atari's resurgence.

When Jack Tramiel took over the reins at Atari, the computer industry was going through a shakeout that caused the demise of many of the third party developers that had supported the Atari Product Line. But it wasn't just the third party developers that suffered. APPLE laid off hundreds of workers, and COMMODORE pushed to the brink of bankruptcy, had to file for reorganization and renegotiate with it's lenders to stay solvent.

During this period, Atari introduced it's XE line of computers. Though all of the software previously released for the Atari computers was XE compatible, sales of the XE were very sluggish, and new software that took advantage of the added memory was slow in coming. Then two things happened that turned things around for the Atari 8-bit line. First, the software industry decided that since COMMODORE might be going down the tubes, they were going to need another machine to support. And lo and behold, there sat the Atari XE, with all the capabilities of the COMMODORE 64/128 line. Easy enough to translate the programs that

they previously had not made for the Atari. And while that was taking place, these same industry braintrusts made a very surprising discovery. They found out that the XE was one darn good computer, equal to, or better than any 8-bit on the market today. And they also realized that there are many other Atari owners that have been pleading for new software, and so the support has begun again.

The second thing that caused the renewed interest in the Atari 8-bit line can be called the trickle down theory. When the 520ST was introduced it caused quite a few eyebrows to raise in admiration. When plans for the 1040ST were announced, the price of less than a buck a byte was unbelievable, and yet that's exactly what took place. To say that the ST line was making an impact on the industry would be like saying the BOSTON CELTICS are a good basketball team. The ST was taking the industry by storm. And all the time the Atari 8-bit line was sitting quietly in the shadows, waiting patiently for someone to think, "If the Atari 16-bit is so good, maybe their 8-bit line is worth supporting too." Thanks ST.

Anyone that thinks that the coattail theory is not applicable to inanimate objects, had better reconsider. So what does it all mean to you the user? Well quite simply it means that you are still going to get the support that you want and deserve. Below are just a few examples of the products that have been recently released or announced for the Atari 8-bit line. Space does not permit a complete listing, but rest assured there are plenty of new products being developed for even the most hungry of users.

HARDWARE:

XEF80 is an 80 column card from XE

SOFTWARE PRODUCTS

XMM801 is the long awaited dot-matrix printer from ATARI CORP.

P:R:CONNECTION is a replacement for the ATARI 850 interface. It has a printer port and two modem ports, and it gets it's power from any ATARI 8-bit computer. ICD is the manufacturer.

ICD MULTI I/O BOARD also from ICD, plugs into the parallel bus port. A 256k version and a 1-megabyte board are available. Included in the board are a parallel printer interface, a serial printer-modem interface, a printer spooler, and a hard disk interface.

THE RAT is a mouse for the 8-bit Atari computers from ZOBIAN SOFTWARE.

Both ATARI and SUPRA have hard drives available for the 8-bit line.

SOFTWARE:

PAPERCLIP PLUS from BATTERIES INCLUDED is a new version of their best selling word processor, with a spellchecker added.

BRIDGE MASTER, BRIDGE PRO, and PEGAMMON are some of the new releases from ARTWORX.

HARDBALL and FIGHT NIGHT are sports games from ACCOLADE.

MECH BRIGADE, U.S.A.A.F., are new wargames from SSI. They also have a new graphic adventure called WIZARD'S CROWN.

VOICE MASTER is a speech recognition program from COVOX.

YIE AR KUNG-FU, 221B BAKER STREET, GUNSLINGER, NEVER ENDING STORY, and ALTERNATE REALITY:DUNGEON MODULE, are all being released or are now available from DATASOFT.

And this is only a small portion of the products planned or already released for the ATARI 8-bit line.

So if you own an 8-bit and you were

worried about the lack of support for your machine, relax. Your computer will continue to get the support it needs.

And as for those of you that own an ST, or are planning on purchasing one, a few words of advice. Atari's new 32-bit computer is already being developed and will soon hit the market. Then it may be your turn to write a column like this one. Congratulations on your choice to stick with Atari. And whether it be 8-bit, 16-bit, or 32-bit, remember, we're all in this together.

For those of you that have decided to purchase a computer other than the Atari, let me say this:

TAKE A HIKE, IKE. ATARI ROOLZ!!!



(Continued from page 23)

the Atari ST computers! The 16-bit version is different from the 8-bit in many ways. You can view the aircraft your flying, from another aircraft. Or put it on auto-pilot and watch the highly detailed scenery. Zoom in on features, upto 1,000 times! Using windows you can bring up maps, other views, etc.. Always wanted to fly a Learjet... Of course the graphics and sound are better. What's really interesting is the ability of the software to allow two ST's to connect via cable (or modem) and fly as individual pilots in the same airspace!!!

TARICON II

BY: B.J. Franczyk

As I ran through the list of wonderful things to tell you that are happening with TARICON II, I can't help looking back at 1986. Since this is the last Journal article I will write this year, I figure this is a great place to stop and catch up on the events that led us to this GREAT place.

1986 was a difficult year for M.A.C.E. in that it was challenged to survive. AND SURVIVE IT DID!!!! It struggled through conflict to victory and emerged with a new born strength. M.A.C.E. is stronger and more unified than ever. We have a full Board of Directors that are producing in every area of M.A.C.E., we are prospering at a steady rate and we are hosting another convention.

It seems the peaks and valleys of ATARI Corporation directly parallel the peaks and valleys of user groups. ATARI CORP. has just come through its own struggles and are reaching new avenues. They have opened the channels to user groups and are considering our strength in their assets. Thus we have TARICON II. ATARI approached us with the idea of hosting another convention with their help and support.

We have finally reached the point where we are all working toward the same goal. Currently, our common goal to make TARICON II the best show ever. It's a good feeling! So when I look at where we've been and where we are now--1987 looks pretty MERRY for M.A.C.E. and ATARI.

Now with Taricon news. The last business meeting included the subject of a hospitality committee, the prospects of video and the job of getting the vendor packets together. The goal of the hospitality committee would be to take care of the vendors. For the out of town folks we are working on a total package including an official airlines and hotel. We are looking for volunteers to be available to drive for these folks and

also man their booths when they need a break. Gordon Monnier from MichTron is giving us first hand advice on making life more comfortable for our vendors. Thanks Gordy! After all we want EVERYONE to enjoy the convention. Bernie Sherman has made arrangements for the most terrific limo to shuttle people from the hotel to the Civic Center. That is really neat. Thanks Bernie! Of course, we will tell you who actually is donating this limo but in due time.

We discussed the possibility of a video. Hal Winters drove in to be with us and share his expertise. Thanks Hal! We need to research our cable company which is CONTENIENTAL CABLEVISION. It seems they are the resource that can do the most in promoting TARICON II through the world of video. C'mon NOW is the time. If you know anything about this aspect of cable or have a desire to learn please volunteer to collect this information and report on it.

We are also looking for a floor manager to oversee the convention. If this appeals to you, I am considering folks for this position now! See me!!! This is a special job that requires much responsibility. There is a job for everyone so if this is yours let me know.

Please see me at the TARICON table during the general meeting if you are going to help write the vendor packets or call me this week at 231-2531.

Tom Sturza informed me that M.A.C.E. officers will be responsible for the M.A.C.E. booth. This leaves the members free to work with the TARICON group. Thanks guys! The board also approved the funds to purchase ATARIWRITER PLUS for our committee. What a pleasure it is to use. My only problem was I had to give it to Jerry Cross (Thanks Jerry!) to do the User Group Newsletter and I couldn't motivate myself to go back to just plain old ATARIWRITER (even tho this has been a love for many years. Thanks Chet!).

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